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Volume 5, Number 2            Z*NET ONLINE            January 12, 1990
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                (´') 1990 by Rovac Industries, Inc.
                        Post Office Box 59
                    Middlesex, New Jersey 08846
                    Editors: Ron Kovacs/John Nagy


CompuServe Mail - 71777,2140                    GEnie Mail - Z-NET
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* THIS WEEK
-----------> JAN 12, 1990
            ------------
            by Ron Kovacs
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We have changed our ID on GENIE from ZMAGAZINE to Z-NET. Just as you
see it typed above is how it should be entered. Any mail sent to
ZMAGAZINE will not be forward to us so please pass the word!

This week we uploaded a few animations by CyberPunk, (Robert Ford), our
SysOp of the Z*Net Online BBS. Look for more next week and the weeks
ahead. All of these files we upload with be worth your time
downloading!

We have 5 copies of PSAN available to anyone interested. Please write
to the above address for a free January issue. PSAN is the Puget Sound
Atari News, and includes the Z*Net International Newsletter Supplement
every month!


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* Z*NET NEWSWIRE
----------------> ATARI NEWS FIRST
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MICHTRON OFFERING ST-FAX:
Major Atari ST software and hardware maker MICHTRON of Michigan will be
releasing the FAST FAX MODEM for the ST line in the next month. Only
two weeks away is the AMIGA version, and Tim Purves of Michtron is now
finishing the ST software. To sell at $699, the modem will allow all
standard FAX sending and receiving, with the resulting intake file
viewable on screen or printer. The FAST FAX was first shown last year
at the April COMDEX in Chicago. It was expected that special
interfacing in the software would enable full images of pages to be
developed in FLEET STREET PUBLISHER and sent as FAXes without ever
requiring local printing. This feature may be included either at first
or a later upgrade. Meanwhile, FLEET STREET PUBLISHER V 3.0 is also
only weeks away from release.

CSS CLOSES, CSS STILL OPEN!:
Last week we told you about COMPUTER SOFTWARE SERVICE of Addison
Illinois closing. Confusing many people is the COMPUTER SOFTWARE
SERVICES company of Rochester, New York, a totally unrelated and major
8-bit Atari hardware and software manufacturer and service center. CSS
(New York) is STILL in business and doing better than ever with sales in
23 countries. CSS (Illinois) was a multi-brand distributor of software
products to dealers across the midwest, and is OUT of business. CSS
(NY)'s most recent success (among 38 products) is the BLACK BOX, an MIO-
like device to provide interfaces to printer, modem, and hard drives for

the 8-bit Atari computer. Z*Net will feature a more in-depth report on
CSS (NY) soon.

UIS:
The Universal Item Selector, version 3 is available now. Ads should be
beginning shortly. Read your favorite Atari hard-copy publication for
the ad.

HP INTRODUCES 24 NEW COMPUTER SYSTEMS:
Hewlett-Packard introduced 24 computer systems this week for a range of
commercial and technical applications, including two multiprocessing
systems that increase the product line's performance three - four times.
This is the largest introduction of computer systems in HP's history.
It includes new entry-level, midrange and high-performance models in the
company's HP 3000 and HP 9000 product lines.

BRODERBUND TOP SELLING SOFTWARE OF 1989:
Where in Time is Carmen Sandiego?, the newest program in Broderbund
Software's award-winning Carmen Sandiego software series, was the best-
selling disk-based entertainment software during the 1989 holiday
season, according to software distributors and retailers nationwide.
Since the introduction in August 1989, resellers have reported sales of
more than 100,000 copies of the program.

BRODERBUND ANNOUNCES ENHANCEMENTS:
Broderbund announced enhanced IBM versions of the best-selling Where in
the World is Carmen Sandiego? and Where in the U.S.A. is Carmen
Sandiego? detective games. The enhancements include: A new, updated
interface featuring pull-down menus; completely redone graphics able to
support VGA, EGA, CGA, 16-color Tandy, and Hercules; digitized sound and
music that now supports most popular add-on cards and Tandy 3-voice and
digital sound.

BBS OPERATOR SENTENCED:
A Maryland computer BBS operator has been sentenced to three years in
prison for his part in a bombing incident last March. David Overeem, 18
years old, of Gaithersburg, Md. is said to have helped operate a BBS
called "Pyromaniac Production Systems," which reportedly provided
recipes for an array of explosive devices, including rockets, car bombs,
pipe bombs, bottle bombs and land mines. Overeem pleaded guilty to
making a pipe bomb that allegedly was detonated by a friend on March 26
outside a 17-year-old girl's home in a suburb of Washington, D.C. After
Overeem's arrest, investigators found computer records in his bedroom
showing that hundreds of people had access to the BBS. Among the
callers were some of the four teen-agers killed Dec. 31, 1988, in the
accidental explosion of a pipe bomb they were building in a Bethesda,
Md., garage.

HITACHI 32-BIT LAPTOP:
Hitachi will start selling a 32-bit laptop computer with a 10-inch,
16-color liquid crystal display (LCD), in Japan in March. Prices will
start at $5,055 US and 728,000 yen Japan.

HAYES RELEASES ADAPTER:
Hayes Microcomputer Products announced this week that it is marketing
its ISDN PC Adapter, a $1,599 internal terminal adapter designed to
provide IBM PC and compatible computers with access to sophisticated
Integrated Services Digital Network systems.

BSA FILES PIRACY CHARGES:
Business Software Alliance has initiated criminal proceedings against a
large Spanish insurance company called Mapfre Vida, accusing it of
making unauthorized copies of software for its own use in violation of
Spanish copyright law.

LOHSE QUITS:
William Lohse has resigned as president of Ziff-Davis Publishing Co.,
publisher of PC Magazine and many other computer-oriented magazines.
Lohse says he will continue his career in the PC industry but gave no
specifics. William Ziff will assume the title of president of Ziff-
Davis Publishing in addition to his current title of chairman of Ziff
Communications.

IBM SUED:
IBM has been sued by a Texas supplier of telecommunications network
management software. The suit accuses IBM of unfair trade competition
and deceptive advertising. The suit brought by Stonehouse & Co. of
Dallas, asks a Texas state district court to enjoin IBM from interfering
with Stonehouse's customer contracts and to declare IBM's new "best
solution" ads are false and misleading.

APPLE ASKS JUDGE TO DISMISS XEROX SUIT:
Apple Computer denying it copied Xerox Corp. software in its Macintosh
and Lisa computers, asked a federal judge on January 5th to dismiss a
$150 million copyright fraud lawsuit filed by Xerox. Apple denied it
had gained "unauthorized access" to Xerox secrets by hiring several key
Xerox employees in the 1980s. Apple also charged Xerox waited too long
to file its suit and gave up any rights to its software. Xerox claims
the suit is brought about by fraud.

* NAMM PREVIEW
--------------> by John Nagy

Atari will again be taking center stage at the Winter National
Association of Music Merchandisers (NAMM) Show, Friday, Saturday, and
Sunday January 19-21. Highlights will include an Atari sponsored reunion
concert featuring ERIC CLAPTON and CREAM, plus a new software
announcement that will make musicians (and the rest of us) very happy.

Last year, the HOTZ BOX was the big feature... although it drew plenty
of attention, it has faded from view. This year, the ACTUALLY AVAILABLE
Stacy laptop ST will be a MAJOR pleasure for attending musicians and
dealers who have been waiting (impatiently) for a portable MIDI-
compatible computer. Atari will go one better this time, offering
MULTITASKING for the first time.

Dubbed "MIDI-TASKING" due to the major push for the new multiple task
environment having come from the Music people (Frank Foster et al) at
Atari. It seems that the multi-task project was almost scrapped due to
Atari officials who did not feel such a thing was useful or desired...
despite it being a continuing if touchy showpiece of the competing AMIGA
system. Fortunately, Frank and others prevailed on behalf of the
musicians who desperately need multiple MIDI controlling programs at the
same time during live performances. MIDI-TASKING will operate though
the DESK ACCESSORY portal on the GEM DESKTOP. Although details are
sketchy and will remain so until a copy can be reviewed up close, it
seems that each desk accessory will open to a corresponding GEM
environment, with dynamic memory allocation between and among the
multiple processes. Each will be a true multitask window, with
processes continuing even when the user is not operating in that window.
This is the system that was to be shown at COMDEX last November, but
never made it.

Assuring the popularity of ATARI will be a MAJOR concert scheduled for
Saturday night. Atari is sponsoring ERIC CLAPTON in a never-before
reunion of the super band "CREAM". Although members of the band had
vowed never to re-unite, this special occasion of the NAMM show, being a
closed event for the professionals of the music industry, Clapton and
the others relented and will perform.

This NAMM show may well serve to push ATARI over the top in musician
respect and use. Long a popular choice for music makers, the new
products from Atari are now providing an affordable and unique answer
for live and studio music use. Among the satisfied new customers:
Michael Jackson, who visited COMDEX where he was photographed with Atari
equipment.

* ATARI AT WINTER CES
--------------------> by John Nagy

The LYNX found it to be an uphill battle at the Winter 1990 Consumer
Electronics Show (CES) in Las Vegas this last weekend (January 6-9), but
it was more a matter of being outnumbered than outranked. Those who
see the little beauty all agree that the GAMEBOY better watch its
flanks. While the portable GAMEBOYS were everywhere in the massive
multi-convention center showing of the latest in electronic offerings
for the consumer marketplace, the little black-and-white (not backlit!)
LCD screen pales next to the Atari LYNX illuminated full color screen.

Our preview report last week proved to be 99% on target, and so we did
not feel it necessary to release a mid-week update just to repeat what
our readers had already heard. One miss: we had reported that Atari
would not have a booth on the main floor of the CES show... and we were
ALMOST right. It seems that EPYX had paid for a 20' booth in the West
main hall before they closed their software sales division, and it was
an opportunity to draw attention to the LYNX and Atari. A last minute
display was assembled, featuring a pair of lovely bikini-clad girls on
roller skates, with a small sailboat as a background. They showed the
LYNX (apparently only sometimes) and handed out invitations for show
goers to come to the "real" Atari display in the Mirage Hotel. The
concept was to "capture a moment" from the CALIFORNIA GAMES cart that is

shipped with all LYNX game machines. Beach babes on wheels present your
scores at the end of the game. It was a good move for Atari (albeit
sexist) - the CES show is almost all male-attended, and the models were
flawless. Terry May uploaded some very clear digitized pictures of them
to GEnie and CompuServe.

To recap, Atari held a Suite in the Mirage Hotel where they displayed
the "consumer" products in their lineup. These days, that means the
GAME CONSOLES, all the way down to the old 2600, and up through the
LYNX. Also "big" was the Portfolio (no surprise there!) Visitors
enjoyed plenty of munchies and perhaps the finest press information kits
yet to be offered by Atari, offered by well informed attendants.

As we reported last week, the "ATARI POWER PACK", a 520STFM bundled with
a stack of software at a very attractive price (under $400) was indeed
being shown. It will include Music Studio, Neochrome, Planetarium, Maps
and Legends, Star Raiders, Missile Command, Alien Brigade, and F15.
Still undecided is whether to include the Timeworks set of Word Writer,
Swiftcalc, and Data Manager, to be relicensed as Atari products, or to
go with the combination of other applications like First Word Plus,
Phasar, and Informer II.

A pair of rumors circulated (elsewhere) before CES were put to rest, at
least for now... there will be no 512K "game console", and any possible
interchange of carts between the LYNX and other Atari game machines or
computers is NOT being considered.

This CES followed the pattern that has been developing across the last
years - computers are "out" at the consumer level. Games, well, maybe,
but PHONES, FAXes, and WATCHES are the big thing again. Among the few
software houses displaying goods: Electronic Arts (mostly their
consignment house titles), TENGEN (showing lots of NINTENDO titles with
the rest), and MICROPROSE. AMIGA (Commodore) WAS on the main floor, but
according to observers, they had a small, poorly attended booth along a
wall "in the cheap area"...

At this time, we don't have a "success report" from CES... after all,
the point of CES is to SELL manufacturers supplies to distributors and
dealers. The Portfolio and LYNX have been selling themselves... with
sales outstripping production to date. The added exposure at CES can
only add to the dramatic demand already in place for the machines.

* NEWSWIRE UPDATE
-----------------> CSS CLOSES ITS DOORS

                   Ctsy CompuServe AtariArts

#: 17193 S2/Games   07-Jan-90 12:46:45
Sb: #ZNT501.ARC
Fm: Jim Ness 74415,1727
To: 71777,2140 (X)

Ron -

RE: Your story regarding CSS (software distributor) going out of
    business.

I have an acquaintance who works for another Chas. Levy division. I
asked her about their CSS division. A number of CSS employees were
transferred to her division, as it is nearby. Most of CSS was
unionized, and she spoke to the union official responsible for taking
care of the transfers and layoffs.

Apparently, the CSS staff showed up for work on Jan 2, and were told at
9 am that the division was closing down. All were sent home. Upper
management had been told of the shut-down on Dec 22.

The union official had been told that the CSS division was not
necessarily losing money, but was not meeting Chas. Levy's minimal
profit standards, due to intense competition in the software business.
The corporation has a reputation for profitability, and made the
decision to get out of the business.

Federal law requires that layoffs of 50 or more require notice. Levy
got around this by only laying off 37 employees, transferring 30-40 to
other divisions.

I asked my acquaintance about whether she thought CSS' outstanding debts
to software producers would be paid in full. She was only in a position
to guess, but thought that Chas. Levy would not want the kind of
corporate reputation that would come from hiding behind bankruptcy laws.
Levy is very large, and is successful in paper-back book distribution,
video tape distribution, video tape rental, and has just purchased a
record company, so that it can enter the audio distribution business.
                                                        -JN

* BOB BRODIE IN CONFERENCE
------------------------> CTSY GENIE

                         Edited by Ron Kovacs

January 10, 1990

<BOB-BRODIE>
Thanks, Jeff! I'm really pleased to be here tonight, and grateful for
the opportunity that GEnie gives us to get together so easily from all
over the country!

I have been at Atari for a little over four months now. This has been
both an exciting, and an educational experience for me. Being a
Southern Californian had me spoiled, and I did not even know it. We had
several groups, and at least five dealers all within an hour's drive!
And all the dealers carried the full line of Atari products. Needless
to say, I have discovered that to be the exception, rather than the
rule. So many of our users do not have access to a dealer of any type,

that I'm of the opinion that getting more dealers, and better dealers is one of our greatest needs at Atari. But to really serve the users groups, I need your input. I need to know what things you need from Atari, and from *me* to make your groups better, more interesting, and to grow. So on that note, Jeff, let's take some questions!!

<[Joel] J.DANNELLEY1>
What are the requirements to get a user group registered now?

<BOB-BRODIE>
I realize that the previous requirements for user group recognition were rather arbitrary. My thoughts are if you're a group, regardless of size, I want to try to support you! I do have hopes of developing some marketing plans for user groups. There is a strong possibility that some of those purchases will require minimum orders. Other than that, no special requirements! I just need to have the group name, acronym, address, a contact person, phone number(s), a bbs number, and a newsletter name (if you have those), and I would also appreciate an online address on a major online service, like GEnie. Please remember to include your area code with your phone number, you'd be amazed how many people forget that!

<[Sysop] JEFF.W>
I know that you're not above hopping on a plane and visiting user groups, Bob. What visits do you have on the calendar right now and how do groups go about getting you to visit?

<BOB-BRODIE>
I have plans to be in Michigan on February 17, in Ann Arbor. I will be visiting with a club on the University of Michigan, MacTechnics. They have around 600 members, and they would like to see the Stacy and the Spectre GCR. While I am in Michigan, Pattie Rayl from Atari Interface Magazine is setting up another meeting for me with the local users groups, including WAUG, and MACE. I have some other meetings that are not confirmed just yet. In Texas, and in Portland, and I do have a request for Hawaii, but I think that Hawaii will have to wait awhile. :)

If groups would like for me to visit them, they need to send me either e-mail, or a letter. It helps if the meeting can serve more than one group. Ideally, I'd like to visit the largest number of people possible in each trip. So please let me know how many people to expect. It helps me justify the trip, and not look like I'm just out visiting my relatives!!!

Also, I am looking forward to visiting with Mac groups as well, so if you can get the Mac guys to come to same meeting, that will really help! Tell them about Stacy, and see if that doesn't spark some interest in them!!

<[Wilton] W.VARGAS2>
Hi Bob! What services do you offer to user groups, and also do you know about the existence of a user group in Puerto Rico?

<BOB-BRODIE>

Hi Wilton. Yes, I know of the user group in Puerto Rico, they are on
the list. Part of what I want to do tonight is find out what things we
need to be doing. With no UG Coordinator for almost six months, I've
been pretty much in catch up mode the whole time. I also try to help
out with problems with dealers, and some other issues as well.

<NEVIN-S>
Thanks. First of all, Bob, I think you should know that everyone thinks
you are doing an amazing job, and we all wish you were President of
Atari. When does your turn come up? <grin>

Now for my question. I have heard a series of rumors that Atari Holland
has decided to not sell the ST any more and sell only the Atari PC. Is
this true, and is this the first of the falling dominoes?

<BOB-BRODIE>
o be honest with you, this is the first that I have heard of this, and
to be even more honest, I really don't pay that much attention to the
Europeans. Only to read their magazines, and try to keep up with their
products that we are awaiting here. I find that the US userbase is more
than capable of keeping me quite busy. So far as I know, (and this is
after speaking with Bill Crouch today) we are still looking at a
primarily ST USA market, with the addition of the Portfolio and the
Lynx.

<NEVIN-S>
Back to you personally, do you see yourself getting involved in other
areas at Atari, such as working to get new dealers. You seem to be the
only one at Atari who is a true professional.

<BOB-BRODIE>
Blush...thanks, Nevin! Of course, dealers are closely related to user
groups. If the groups have no where to buy the computer, we're in
trouble! So yes, I have made some suggestions, and in fact that was a
lot of what Bill and I talked about today. We need to do a lot better
job of taking care of our dealers and enlisting more!

<K.MALARK>
Bob, If the BRAG*ST group in conjunction with the Rochester and Syracuse
were to put on a show, would Atari be able to provide some of their
advanced machines for display like the TT, ATW and PC computers? Also,
what is Atari doing to beef up the US market other than usergroups.

<BOB-BRODIE>
Well as far as the advanced machines, the PC is only one that is even
close to being readily available here. The TT is, of course, in great
evidence here in Sunnyvale, but it not yet a product that we would send
out un-escorted, if you catch my drift here. As far as the ATW, I do
not know if there is one in the US. My understanding with that is that
the primary development is going on in Atari UK.

<[Michael] M.LUNNEY1>
Thank you Jeff. Good Evening Bob. You have mentioned the importance of

your dealers in keeping Atari on the move, and I agree with that whole
heartedly. I recently had some problems with a local dealer's lack of
inventory and general expertise in servicing its customers. I was about
to give up hope in my Atari investment until a friend at work pointed me
toward a more "Mainstream" and "Professional" computer store in another
part of the state. Do you have any thoughts on how to raise Atari from
its "cult" status to that of a "legitimate" computer??

<BOB-BRODIE>
Well, part of that is obviously our problem, and part of it is the
dealer. We know that many of the dealers that we have are the Mom and
Pop type of store. That does not mean that they not capable, or not
"GOOD" dealers, it just means that they tend to operate a little...
ahem, less professionally than some of the other dealers. By that I
mean that they do wear a suit in the store, tend to have a more casual
appearance, etc. But, many of those dealers do a wonderful job, and are
quite competent at selling and servicing their products. So we have to
aim at striking a balance on the dealers end. Of course, having great
software makes that much easier to do and we do have some specialty
dealers that are very good, and professional, at selling and servicing
their products. But I also know that professionalism is not just
measured in how the dealers look, or how well they sell their stock. It
also (in my opinion at least) rests on how well they KNOW what it is
they are selling. I have been in stores where the dealer had a package
that I was interested in and the only thing they know about the product
is what they read off of the wrapper. That does not get it. So, we have
to try to recruit and attract a quality dealer. But there will always
be ones like you have described.

<BOB-BRODIE>
Thank you, each and every one for your support in helping Atari, and me,
present the Atari computers in the US. I know that it has not always
been an easy task, and we as a company have a long way to go in the US.
With your help, and suggestions, we will have a brighter future. I also
want to stress that I want to be as available as possible, and work to
be an asset to your group. My office phone (408-745-2052) is on 24 hours
with an answering machine. Of course I am here on GEnie almost *daily*,
and I can be FAXed at 408-754-2088! Thanks.

<[Sysop] JEFF.W>
Thanks again to all!

* FCC MODEM TAX
--------------> ANOTHER LOOK

Article #280 (280 is last):
Newsgroups: freenet.sci.comp.tandy.general
From: ab245 (Sam Latonia)
Subject: Re: DID YOU KNOW?
Date: Sun, 7 Jan 90 16:33:08 EST

Hi Jerry,

Yes I'll keep you up to date as best as I can on this, but I can't take credit for the original posting. I picked up on it from the Handicap SIG at the end of last month. It was posted there first by AC528 Robert Werab. I don't understand why no one took him seriously about it. I did and reposted it on all of the computer sigs because I thought that there might be many people out there that do as I do and only check into a few sigs, that might not have the chance to see it. I have been a ham radio operator in the past and have 30 years of knowing how the FCC works and how they cover up things by telling the public just the opposite of what is going on and that they couldn't contact people because they didn't have their address. Well I mailed my letters in 8 days ago and they DO! have my address and I have not received anything from them as yet, nor have I seen or heard anything on the news denying the original report.

Check out the msgs. on the Handicap Sig, there is more on this report to see. I don't have a clue as to why all of this is going on there where most people would not see it, but here are the headers to look for..Sam.

Article #212 (220 is last):
Newsgroups: freenet.med.handicap.general
From: aa387 (Jim Kutz)
Subject: Of all the States, Ohio most vulnerable to modem phone
rates. -Kutz
Date: Wed, 3 Jan 90 08:29:39 EST

Congressman Eckart's office confirmed that "various phone companies are contacting their state public utility commissions asking for permission to add surcharge to modems. But that would be strictly on the state level." I was not told which states. The Ohio Public Utilities Commission is checking their records now to see if Ohio Bell has filed such a proposal.

Even if they haven't yet, that don't mean they won't.

According to Consumers' Council investigator Katherine Thomas, The telephone companies in Ohio were deregulated by House Bill 563, which she said "was rammed through during a lame duck session of Congress" a year ago last December.

"Basically it's really kind of nebulous. They don't go into much detail about what kind of rate-making process they're going to use - they just call it "alternative rate-making."

Thomas said that Ohio is the only State to give that much power to a phone company monopoly. But she added that the phone companies are on probation for eight years. During that time, the Public Utilities Commission can say "This hasn't worked", and can recommend re-regulation.

Thomas said the phone companies are "unbundling their rates, and trying to eliminate flat rate service, because they say they're not making enough money. Which means everything we're used to in the way of telephone service is going to change. They want to charge us by the minute and by the distance called on our LOCAL calls as well as our long-distance calls... We need to keep up with this. It's going to be a massive undertaking."

I asked Ms. Thomas how the Ohio legislature got conned into approving such a crummy deal for the consumer. She said that the bill had been

soundly defeated the previous year. "What happened was that then-Commission chairman Tom Chemma got together with the Telephone Association and rewrote 563, and helped them cram it through" in a surprise vote with 21 members absent. (Chemma plans to run for public office later this year). The vote was recorded, so you can get a list of which legislators sided with the phone company, by writing to the Consumers' Council.

Readers outside Ohio, be advised that according to Congressman Eckart's Office, several phone companies are already filing rate increases with the utility commissions in various States, hoping to get what they want before the regulators have a chance to react. Most states do not have regulations in place, because until recently those matters were handled by the Federal government.

Congressman Dennis Eckart   Mary Rose Oakar
Telecommunications Subcommittee   Rm. 523
1111 Longworth Bldg.   215 Superior Ave.
Washington D.C. 20515   Cleveland Ohio 44114

Congressman Ed Feigha   Congressman Louis Stokes
rm. 2951   2947 New Federal Bldg.
1240 E. 9'th St.   Cleveland Ohio 44199
Cleve. Oh. 44199

Office of the Chairman
Telecommunications Section
Public Utilities Commission of Ohio
180 E. Broad St.
Columbus, Ohio 43266-0573 tel. (800) 686-PUCO 282-0198

Katherine Thomas, Investigator
Office of the Consumer's Council
77 S. High St. 15'th Floor (Riffe Office Tower)
Columbus, Ohio 43266-0550   tel. (800) 282-9448

Attorney General's Utility Information   tel. (800) 282-0515

Also be sure to write your State legislator, in your own words. You might want to point out that since your government has granted a monopoly to the phone companies, your government is obliged to prevent abuses by that monopoly. If you get brushed off with some malarkey about 'deregulation', you might point out that you have a Constitutional right to representation in government, plus a First Amendment right to petition your government for the redress of grievances, and to have those grievances accorded due process.

I think the real problem is that it's been too EASY for legislators to sell out. But what if the handicapped start printing out the details of each sellout and mailing those printouts to several friends? What if several online networks kept a database of which legislators sold out the handicapped? What if every legislator who gave away our rights suddenly discovered that he or she could NEVER expunge the record of that foolish act. Let's not forget that one third of all households have personal computers.

I'm going to say one more thing here. You can't just sit back and wait for some sysops' organization to represent you, or some 'user group' organized by a commercial network. But there is a way to make your letter count for a thousand. Very few people bother to write their

Congressman. So when you write a letter to your Congressman or your
State Rep, they have to assume that many OTHER people feel the same way.
So what they do is look at your letter to see if you're typical of a
much larger group (such as the handicapped, or students). So be sure to
mention how you use your modem. And be sure to mention that you found
out about this issue from a computer that serves many OTHER people with
similar interests. That way, your Congressman will know that other
voters are unhappy, even if they don't say so.   - Jim Kutz (aa387)

"If we don't all hang together, we will all hang separately."
 - Ben Franklin (I think)

Article #211

To: Friends of the deaf and mobility-impaired who use modems.

I just checked with Congressman Eckart's office (he's on the
Telecommunications Subcommittee which blocked the modem fees last time).
The good news is, there are no new FCC regulations to protest. The bad
news is, the FCC is not STOPPING the phone companies from charging extra
in other states. Under 'deregulation', phone companies don't even have
to ASK the FCC for permission.

* GRIBNIF SOFTWARE
------------------> NEODESK UPDATE

PRESS RELEASE - 1/8/90

"NEODESK ACCESSORIES"

Gribnif Software is proud to announce a special hidden feature of the
latest shipping version of their best selling product, NeoDesk 2.0 - The
Desktop Alternative.

NeoDesk 2.05 has been designed to support the ST's "GEM Pipeline". This
support allows for special "NeoDesk Accessories" to be written which can
access many of the NeoDesk functions directly. These accessories can
then use any of these NeoDesk functions for their own use or be designed
to add whole new features to NeoDesk. The possibilities are endless.

During the coming months users will benefit from a number of "NeoDesk
Accessories" that will be released in the "freeware" and commercial
markets. Users of older versions can contact Gribnif Software at (413)
584-7887 for information on how to upgrade to version 2.05 and thus
benefit from these exciting "NeoDesk Accessories".

"NEODESK RECOVERABLE TRASHCAN"

Gribnif Software is proud to offer a "freeware" new year present to all
of its customers. This present consists of a special "NeoDesk
Accessory" which interfaces with Gribnif Software's best selling
product, NeoDesk 2.0 - The Desktop Alternative (version 2.05).

This accessory gives NeoDesk users a brand new recoverable trashcan. This trashcan will store any items that the user tries to delete for an indefinite period of time. At a later date, the user may choose to restore any of the deleted items or to permanently remove any of these items from the trashcan (thus emptying the trashcan).

This, the first of many, "NeoDesk Accessory" is available for immediate download from GEnie and other electronic services. No fee is required for its use, though Gribnif Software reserves all rights to the program.

"NEODESK DEVELOPER'S KIT"

Planned for commercial release in early 1990 is the "NeoDesk Developer's Kit". This kit contains all the code and information needed so that users can write their own "NeoDesk Accessories". These accessories can access many of the NeoDesk functions and features directly. They can also add whole new features to NeoDesk itself. The "NeoDesk CLI" and the "NeoDesk Recoverable Trashcan" are examples of what can be done with this kit.

The "NeoDesk Developer's Kit" requires some knowledge in the areas of 'C' programming, desk accessories, and pointers. The kit can be modified to work with other higher level languages. It requires NeoDesk 2.05 or later.

"NEODESK CLI"

Also planned for commercial release in early 1990, the "NeoDesk CLI" is a complete Command Line Interpreter which operates entirely out of a GEM window. It hooks directly into NeoDesk giving you complete access to most of its functions. Its MS-DOS and UNIX style commands can be used to develop advanced batch files, interactive menus, and control scripts. Special features allow for a smooth interface that convert it and NeoDesk into the ultimate user environment.

Since it hooks directly into NeoDesk, it benefits from many features over any other CLI. These include the ability to execute any program directly from an accessory and to benefit from the enhanced file copying features of NeoDesk. By calling many of the NeoDesk functions directly, it is also able to maintain a relatively small file size.

WHAT IS NEODESK?

All of these accessories all revolve around one program, the best-selling NeoDesk 2.0 - The Desktop Alternative. This program is a complete replacement to the built-in GEM desktop that comes with the Atari ST. Unlike other programs which only offer a couple of simple features, NeoDesk offers a complete graphical interface to the ST with hundreds of new features and enhancements.

This interface makes the Atari ST easier to use, more powerful, and much more efficient. Floppy users will find it a great benefit requiring only 1/3 the memory of most other utilities, while hard disk users will rejoice with the added power and performance.

Some user comments about NeoDesk (as taken right from the warranty cards):

    "EXCELLENT!" - BL, Ontario
    "BRILLIANT - A marvelous piece of thoughtful design!" - PB, Hawaii

```
   "A wonderful product...I love it!" - JW, Illinois
   "How did I ever do without it?" - RW, Ohio
   "This should be included with every ST sold!" - SC, Montana
   "Best piece of software I have ever brought!" - DH, S. Carolina
   "Thank God for NeoDesk!" - JT, San Francisco
   "BRAVO!  As a fellow programmer, I salute you!!  Job WELL DONE!
     THANK YOU!!" - ML, Texas
   "I've wasted so much time without it!" - MB, Ontario


        For more information, or to place an order, contact:
                         Gribnif Software
                        Post Office Box 350
                        Hadley, MA  01035
                      voice: (413) 584-7887
                       fax: (413) 584-2565
                  orders only line: (800) 999-GRIB
                          GEnie: GRIBNIF
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* SUPPORTING SHAREWARE
--------------------> by Terry Schreiber

                      T.R.A.C.E.

Most computerists are aware of the many bulletin boards and networks
available with file areas that are classified as Public Domain software.
What most of these users don't know is that some of the software they
regard as free is actually shareware. Shareware is software that has
been released by the developer for you on a try on a limited basis. If
you like the program then you are asked to purchase it or updates by
sending the programmer money. Most developers ask for five or ten
dollars, or even donations, which is not unreasonable for a program
compared to the cost of a software package at your local store.

The problem is that most people are using the software and not
supporting the author. If this continues developers will soon tire of
the hours of work they spend on programming in comparison to the revenue
in return. These programmers are not going to get rich from this
revenue in fact in most cases it doesn't even cover the cost of the
updates and mailing to get the latest revision to you.

A partial solution our users group came up with was to increase the
selling price of all disks and magazines twenty-five cents with this
amount going into a kitty for shareware authors. Each month we will
draw a name and the total will be sent to that developer. This, of
course does not mean that the members can't still kick in what they want
as well sent to the programmer. We are hoping in this way to have not
only the individual registered for updates but the club as well. I hope
this plan meets with your approval programmers.

I realize that this is just another one of those pleas to support
shareware developers, but you should realize that by not paying for a
program that you are using you are as guilty of a crime as software
piracy or theft. There may be a few eyes opened with the last
statement. I'm sure there are programs you use all the time and don't
even think about. Arcshell, Cheetah, Dcopy these are all in the
category of shareware. I wouldn't like to estimate but I would guess

at least ninety percent of the persons using these and other shareware
programs have not paid for them. Prove me wrong! Please!

* AUA UPDATE
------------> PERSONALS!
            ----
            by: Robert J. Guadagno,
            Aces High BBS: The Atari R.A.C.E.

Over two years ago I created the Atari Users Association (herein called
the A.U.A.), an organization that will be made up of "every" Atari user
group, the plan, the idea, every aspect of the group was put into place
with the USERS in mind... The A.U.A. was off to a rocky start, but with
the help of Z*MAG/Z*NET and other On-Line magazines we gained quick
'fame', members, letters, and groups all went out of their way to get in
on the bandwagon. Of course there were a few that accused us of
promoting my store which was the main sponsor of the A.U.A. (Please
note: I have offered software and the like to users that called, but I
never sent out one store flyer!).

After fourteen months things started going wrong, the A.U.A. was being
attacked by some of the FoReM nodes, money to keep the group up and
running was nowhere to be found (second note: I never took a dime from
anyone, we did ask at one point, but when nobody came through, we
dropped the request. All of the A.U.A.'s expenses came from my pocket).
In a last hope (June 1989) the THEN A.U.A. officers: Robert Ford,
Richard Levy, Gary Amey, Richard Guadagno, and myself took an eighteen
(18) hour trip to the World of Atari show in Dearborn, MI. There I
spoke with many of the groups, companies, and the many people I only
knew through Z*MAG.

When I arrived home, I quickly wrote of the A.U.A.'s WOA news and placed
it on the FoReM BBS we used as base (Hologram, Inc. SysOp: Dean
Lodzinski), a few short days later we were attacked again, this time
worse than before...I knew then that I could no longer afford, both
financially and personally. So one late day in July 1989 I announced
that the A.U.A. was up for grabs.

My then Public Relations Officer: Joseph Muha, offered to take the
group, holding onto my dream...my only request was to be given credit
for the foundation of the group and for the group to fight for ATARI and
the ATARI USERS, Joseph requested all of our 'questionnaires' and
paperwork. It was all set, a few weeks later, after talking to each
other via F-Mail on the FoReM BBS's, that Joseph, and the 'Atari Elite'
were the controllers of my dream.

Needless to say there were problems, more with me than the new A.U.A.,
my family and I were hit by a stroke of bad luck that I would rather not
discuss, and my sending the paperwork to the 'Atari Elite' was delayed
(for almost three months!).

One fine day in November I sent off ALL A.U.A. paperwork to the 'Atari
Elite', it was then I learned that Joseph was no longer associated with
the group, I will point out that this is the main reason I am writing
this. The 'Atari Elite' have complete control of the A.U.A., they have
made some choices that I told many users would never happen (charging
users to 'VOTE' on subjects for one), but as I have said, the group is

no longer mine, and I request that any persons wanting to support the
A.U.A. to write the address below.

Letters sent to me for the A.U.A. will be sent back. I am still active
in the Atari community, I will not rest until Atari is a household word
again. I am an major supporter of the REVOLUTION!, and the
significance behind the A.U.A. but no longer a member or in any way
apart of the new A.U.A.

My reasons are simple, the A.U.A. was to be the "VOICE OF THE ATARI
USERS", both 8-Bit and ST...that is no longer the case, the A.U.A. is
now only ST support. I have no 'bitter' feelings, but I do not see MY
A.U.A. in the new A.U.A., and because of that, my former officers, and
myself are stating that we are not in any way affiliated with the new
A.U.A. group.

Currently I am a member of the REVOLUTION!, R.A.C.E. (Raritan Atari
Computer Enthusiasts), and am apart of the growing userbase in the Atari
world!!

My best hopes to the new A.U.A., and to the REVOLUTION! and as always..
Support your computer DON'T KILL it, put an END to PIRACY!

Robert J. Guadagno
Founder: Atari Users Association
          GEnie: R.GUADAGNO1
          Aces High BBS, FoReM F-NET: "Comic-Kid"
          Atari Corp. BBS: R. Guadagno

FORMER A.U.A. OFFICERS & DIRECTORS:
Robert J. Guadagno, Robert L. Ford, Gary W. Amey, Richard G. Guadagno,
Richard Levy, Michael Gains, Dean Lodzinski, Joseph V. Muha, Kenny Hurd,
Fred Getto, Michael Matroski, Daniel T. Reily, Robert Filmore, Robert
Young, Ray Willmott, and Howard C. Johnson.

Atari Users Association   Atari R.A.C.E.
c/o DC Signorini   c/o Gary Amey
Rd#2 Box 278B   58 Shoreland Terr.
Canonsburg, PA 15317   N. Middletown, NJ 07734

* REVOLUTION UPDATE
------------------> OPEN LETTER TO SAM TRAMIEL
                    ----
                    by Patrick McShane

SAM TRAMIEL, President
Atari Corporation
1196 Borregas Avenue
Sunnyvale, California 94086

January 8, 1990

Dear Sam;

As the Founder of PCS School for Advanced Learning and lifelong owner
and supporter of Atari Computers I have come to a point in the

development of my Computer Curriculum when I have 'had it' with the lack
of support and apparent lack of interest, on Atari's part, for
Education.

I founded the PCS System five years ago and the Computer Curriculum has
been centered around Atari computers...no other systems need apply. I
have established a National reputation for producing national champions
in the fields of Computer Technology, Mechanical Engineering and
Electronics. My kids, ages 3 through 18, work daily on 1040ST's. I
have repeatedly attempted to make contact with you, to no avail. I did
establish contact with Sig Hartmann who made many promises to visit this
school and to provide for us, from Atari-UK the Robokit (hardware and
Software)...Promises made and broken. He had enough information sent to
him from my Corporate Director to fill a filing cabinet...promises
broken.

It seems quite wrong for Atari to ignore the developments that kids have
done with Atari's (p.e. a 6th grader, 5 years ago, invented an interface
that allows kids to run any motorized LEGO creation from a 130XE
computer) when such people as Dr. Harvey Long, the IBM guru for
Computers in Education and the CEO's of corporations like Micron and HP
have visited the school and all agree that we are light years ahead of
the rest of the nation...Yet Atari ignores us.

Atari also ignores it's loyal users. If we didn't have our Antic,
STart, Analog, ZNET, CIS, GEnie, etc. we would have long since packed it
in...Atari users comprise one of the most impressive support groups that
it has been my privilege to participate in...yet Atari is silent.

Your Atari users feel that you reject us as unimportant. We see you
catering to the European users and neglecting us. I feel like a
neglected child and it MAKES ME ANGRY !!!

Therefore...I have decided to throw the national weight of PCS Schools,
Inc. 100% behind the 'Revolution' and pledge my total dedication to that
effort. In addition, I am writing to the Producers of 20/20 and sending
a copy of this letter to them. I am also going to upload this text file
for general reading on both CIS and GEnie as well as a copy to ZNET. It
is time that Atari came to their senses and began recognizing and
supporting its loyal users HERE in the United States. Further, as a
pioneer in Computer Education, I want to see Atari take an ACTIVE
interest in Education instead of simply paying lip service to it.

PCS Schools, Inc., Staffs & Students join the Revolution.
   Patrick McShane Founder & Headmaster

* LINE NOISE
------------> Z*NET BBS

Message : 173 [Open] 1-06-90 2:58pm
From   : Grady Johnson
To   : Sysop
Subject : Z-Net
Sig(s) : 1 (General)

Ron,

I carry 4 current issues of ST*Zmag and Z*Net online in my databases at all times on my BBS, Fantasy Island, Oregon, Ohio 419-691-6459 3/6/12/24 baud, 24 hours, 67 meg. This is my answer to your request for a list of BBS's that carry Z*Net magazine

Later Frizz....
Grady

Message : 192 [Open] 1-08-90 8:33am
From   : Mike Mezaros
To   : Ron Kovacs (x)
Subject : Znet Carriers
Sig(s) : 1 (General)

Here are two boards which carry your Z*Net magazine, Ron:

The [Blank Page] BBS (201)-805-3967
Running on FoReM XEP
SysOp: Stan Lowell
Stan has been carrying Zmag/STZmag/Znet for some time now.

The Hacker's Hotline ST (201)-390-9782
Running on FoReM ST
SysOp: Dave Drust
Dave is a new carrier of Zmag, and now, of course, of Znet.

Please add them to your list.   ///Mike

Message : 203 [Open] 1-09-90 1:56am
From   : Timekeeper
To   : All
Subject : BBS/REVOLUTION!
Sig(s) : 2 (Revolutionary Discussions)

The Temporal Fixation is joining the revolution, and will try and keep these updates posted as quickly as possible! The Temporal Fixation - Hayes 9600, 20 meg, 24 hrs. (609)423-4865.

More systems supporting Z*Net!

GreySTone BBS   (201)362-8966
Eleusesthai BBS   (415)871-9451
Hangar BBS   (201)366-3891
Poison Petes   (201)948-3428 9600
The Demon Pit   (201)948-2496 9600
Zardan's BBS   (201)729-0097 9600
The Greystone BBS   (201)362-8966 2400
JACG BBS   (201)298-0161 2400
The Hangar BBS   (201)366-3891 2400
Al's Cabin   (717)686-3037 9600
The Foundation BBS (817)444-3023
The Time Tech BBS   (719)543-1869

                              the CyberPunk
                              I'm Proud to Support the

* EDIT YOUR DESKTOP.INF FILE
----------------------------> FROM THE Z*NET BBS
                              ----
                              by Richard Guadagno

How to edit your DESKTOP.INF file.

If you want to edit your DESKTOP.INF file, the first thing you must do
is load the DESKTOP.INF file into a Text Editor, or Word Processor. If
you own FLASH from Antic, use it's BUFFER window. FLASH has great
editing features. Once you have the file loaded you must decide what
you want edited.

1. If you want to edit the name of your TRASH CAN, look for the
    following line.

            #T 04 07 02 FF TRASH CAN@ @

 Place your cursor on the @ symbol. Then carefully use the [BACKSPACE]
 key to delete the name. Then just type ANY name up to 9 characters,
 you want to appear under your TRASH CAN Icon.

2. If you want your 'Installed Programs' to be executed from a folder,
    or if you want to install more files. Look for this line. (or one
    like it)

        #G 03 04   A:\ARCSHL21.PRG@ *.ARC@
        #G 03 04   A:\ARCSHL21.PRG@ *.LZH@

 Simply edit the line by inserting the folder name. Be sure to use the
 backslash '\' like this: A:\FOLDER\FILE.NAME@   Make sure you do not
 delete the @ characters. While you are doing this you can easily add
 more file extenders. Just copy the lines exactly.

The line that starts with #G is for GEM programs.(PRG, APP)
The line that starts with #F is for TOS programs.(TOS)
The line that starts with #P is for TTP programs.(TTP)

* ATARI STE/TOS 1.6
-------------------> FIRST IMPRESSIONS
                     ----
                     by Darek Mihocka,
                     Branch Always Software. (C) 1990.

It's finally here. Atari kept its promise of shipping the STe before
the end of the year, although they didn't quite keep their original
promise of shipping in October. All other developers that I've
contacted are still waiting for Atari to ship them their machines, and
I'm told the STe has yet to make its appearance in the U.S. They are
plentiful here in Canada, having arrived a few days after Christmas.

According to Atari Canada, the list price of the STe is $1100 (Canadian) which is $900 and change in US dollars. You wouldn't know it based on the prices that stores here in the Toronto area are selling them for. Try $699 (Canadian), almost 40% off the list price, which is barely higher than what a 520STFM costs, and less than what most stores sell the 1040ST for (although the prices are starting to come down fast). Although I had sworn to never again buy another Atari computer, I'm not going to pass up a bargain. With the money I can get for my old 1040ST, this machine hardly cost me anything, and I don't even have to pay for the TOS and blitter upgrade!

So, what's inside the cardboard box? If it wasn't for the very tiny letters on the label, you'd think you were opening up a 1040STFM box. The computer itself looks identical to a 1040STFM, except for the extra joystick ports on the left side of the keyboard and the two audio jacks on the back. Yes, the mouse still plugs in underneath the keyboard. Arghhh!

When the machine boots up, the desktop looks just as it always has. Clicking on Desktop Info produces the same Rainbow TOS display as TOS 1.4, except that the actual version of TOS in the STe is TOS 1.6, with a date of July 29, 1989.

Already I ran into a bug. It seems that in color, the machine always boots up in low resolution, regardless of whether you saved a desktop in low rez or medium rez. This can be quite annoying. One way to get around this I found is to autorun a medium rez program like Flash. I've already been told that a patch program will be out from Atari in a matter of days to fix this bug.

Another bug I found is that every once in a while if I click on a .PRG file, I get the Show Print Cancel box. If I click Cancel and click on the file again, it usually loads fine, although earlier today, I had to click on FLASH.PRG about 6 times before it finally loaded. I have had this problem happen on earlier versions of TOS, but very rarely. On the STe it happens quite often and is a bit bothersome. Let's hope a patch for this comes out soon too.

I'm told the TOS 1.4 patch programs to fix bugs in TOS 1.4 will also work on TOS 1.6, but I haven't verified this. Maybe I should just wait till the pirates release fixed up versions of TOS 1.6, as they did with TOS 1.4. Since there is so much free space on the ROMs now, there is a lot of room to add in extra patches.

Fortunately, I use monochrome most of the time, and the low rez bug won't bother me too much. But before switching over to monochrome, I tried the new Control Panel that the Atari STe addendum mentions. Tilt! I lose! It seems Atari is shipping the old 512 color Control Panel with the STe. I had to go in with a debugger and manually poke into the color registers to try out the new colors. Yes, they do support 16 grey levels of red, green, and blue for a total of 4096 possible colors. To achieve the 4 bits of brightness per color, the unused bit in each nibble of each color register hold the 4th bit. This new bit is the LSB, so it has a minimal effect. Old ST software which uses only 8 brightness levels, formerly 0 thru 7, will now actually be using levels 0,2,4,6,8,10,12, and 14. This is pretty well fully compatible with all existing color software.

That raises a question. Will we see a Spectrum 4096 program soon? I don't know what Trio Engineering has planned, but based on what I know

about the Spectrum file format, all of the display programs out there
will support 4096 colors as is. It is simply a matter of modifying the
Spectrum or Unispec programs, or any number of Amiga to Spectrum
conversion programs to generate 4096 color files.

I'm sure that video digitizer software will be upgraded to support the
16 grey levels. VIDI-ST currently tries to emulate 16 grey levels but
it still looks bad. Hmmm, I think just editing the color palette files
on the VIDI-ST disk should allow me to do that myself. Ok, never mind.

I tried out the RF modulator. One of the things that really bugs me
about my 1040ST is that it doesn't have an RF modulator or composite
video output, even though the original 1040ST manuals all said that they
do! Anyway, I plugged the RF output into the RF jack of a Sony KV-1331
television, and the display was quite good. Even in medium resolution,
80 columns was readable, although I wouldn't recommend it for long
periods of time. Low resolution was excellent and certainly if all you
plan to do is play video games, save yourself the $400 cost of a color
monitor and just use a color TV.

After I switched to monochrome, I started to test out various programs
for TOS 1.6 compatibility. I'm happy to say that Quick ST and all of
the Quick Utilities ran just fine. All other programs I tried also
worked fine, except for the ones mentioned a bit later.

Quick Index reported that TOS 1.6 was installed, and gave speed indexes
similar to that of TOS 1.4. GEM drawing speed was about 5% to 10%
faster, while BIOS was about 1% slower. So with the debugger again, I
took a look inside TOS 1.6.

It seems that Atari may be planning a 68020 or 68030 upgrade for the
STe. The ROMs are coded to be compatible with any 680x0 chip. That is,
they support both the 6 byte exception stack frame of the 68000, and the
8 byte frame found in the 68010/20/30. Hooray! TOS 1.6 should run
unmodified on a 68030. I hope somebody at Atari has tested this.

The 1% slowdown in BIOS is probably a result of the extra lines of code
required to test a new OS variable _longframe at $59E, which indicates
whether a 6 or 8 byte frame is being used. A quick look at the trap #1
handler gives a good idea of how to write CPU independent interrupt
handlers, which should also run on the TT.

Also changed are line F calls. There are none! This means that TOS is
slightly larger than before, but could also be faster. This could be
why GEM is so much faster. Even Quick ST speeds up by about 10%. But
TOS no longer fits into 192K. The ROMs have been relocated from $FC0000
to $E00000. The OS variable _sysbase at $4F2 points to the start of the
ROMs, and programs (such as UIS II or DC ShowIt) that assume that the
ROMs are always at $FC0000 will fail to run unless patched for the new
location. In fact, trying to access the old memory locations will
generate a bus error and crash the system. TOS now uses 256K, of which
only about 200K is actually code and the rest is empty.

Another problem with the removal of line F calls is that certain
programs that depended on hooking the line F vector will not run
properly, such as Hotwire. Although Hotwire still runs if double
clicked from the desktop, the Codeheads tell me that it will not be
possible to install it as an AUTO folder program or use the hotkey
feature until they fix up Hotwire for TOS 1.6. A patch program is
required in any case, and I'm told it may already be out by the time I

upload this file.

Other TOS version dependent programs may also fail under TOS 1.6, and may required either patches or upgrades.

While on the subject of compatibility, my dealer tells me that Populous doesn't run on the STe. Too bad, how sad. (I'm not a big fan of video games as you can tell).

Otherwise, everything else I tried ran fine on the STe, if not faster. The STe has a built in blitter chip, which is a big plus for all the 1040ST owners like myself who have been waiting for 4 years for Atari to deliver the blitter upgrade they promised when the 1040ST was first released. Software accelerators will still provide a bigger speed increase than the blitter, but heck, if it's free, take it.

I took the patch cords from the back of my tape desk and plugged them into the left and right audio jacks on the back of the STe. Sure enough, the keyclicks as I'm typing this now are coming out both channels of my stereo. Reminds me of the old Atari 800 days when I did the same.

So what about this new digital stereo sound? Well, since Atari has not yet shipped any documentation for the new hardware, I took out the debugger again and just scanned upper memory for new undocumented hardware registers. I found the blitter chip at $FF8A00, and sandwiched in between the sound chip and blitter chip, at $FF8900, was the new digital sound chip.

All I had to go on was a recent magazine article which said what the new hardware is supposed to do. So, knowing what to look for and after several hours of poking around, I finally got it to play digitized sound files (such as the SATAN.SND (the Church Lady) file downloaded from GEnie). Here's the scoop on the hardware...

$FF8901 - this is the location that starts a sound.

 bit 0 = store a 1 to start playing, 0 to stop
 bit 1 = a 1 in this bit will keep playing the sound over and over again
        while a 0 only plays it once
 bits 2 and 3 - they do something, but I don't know what!
 bits 4 thru 7 - seem to be unused

$FF8903, $FF8905, $FF8907 - similar to the video chip, this is a 24 bit starting address of the sound sample. High, medium, and low bytes.

$FF8909, $FF890B, $FF890D - again, as with the video chip, this location gives you the current byte that the chip is processing. This is a read only location.

$FF890F, $FF8911, $FF8913 - this is the 24 bit ending address of the sample. Note that both the starting and ending address must be even, and be in the range $000000 to $3FFFFE. If you store larger numbers, the upper bits are just ignored.

$FF8920 or $FF8921 - this controls the speed of the sampling, as well as the mode (stereo or mono). According to the article, you are limited to only 4 speeds - 50 kHz, 25kHz, 12.5 kHz, and 6.25 kHz, and sure enough, thats what I got.

bits 1 and 0 - this selects the playback speed of the sound samples.
                0 is slowest, 3 is fastest.
 bit 8 = store a 1 to play mono and 0 to play stereo.

$8924 or $8925 - these two locations just seem to act as RAM. Can't
figure them out.

So how does one use the chip? First, you load a sound sample into
memory. It can either be a standard .SND file, which simply contains a
stream of 8-bit sound samples, or a stereo file (which I guess don't
exist yet except for the ones I've created) which contains a stream of
alternating left and right channel samples. Then you store the starting
and ending location of this sound sample into the above hardware
registers, select a playback speed and mode, and poke $FF into $FF8901
to have it play over and over again.

Some sound files may have to be slightly modified, depending on whether
the sound samples are signed or unsigned 8-bit numbers.

The sound is played using DMA, so it takes absolutely no time away from
the 68000 and allows other programs to play in the background. I
modified the SATAN.SND file so that it is in stereo, with the right
channel being several seconds behind the left channel. Then I stuff
that into the AUTO folder with a small TSR to load the sound sample and
start playing it, and off it goes, saying "Could it be.. Satan?" over
and over again.

Yes, it gets boring after a while, but it does show quite a potential
for new multimedia software products. The sound quality is much better
than that of the currently available sound players which try to play
.SND files through the monitor speaker. 8-bit sound is roughly the same
quality as AM radio, except the frequency response can be much higher if
you sample faster.

I took our home-built 12-bit audio sampler and was able to play back
files easily. The only drawback of using a 12-bit or 16-bit sampler is
that the raw sound file will contain 16 bit samples, so when played back
in stereo mode, the left channel will play back the sound, and the right
channel will have garbage. But it is easy enough to convert from one
format to the other.

On to video! The new video hardware contains two new registers which
reminds me a lot of the Atari 800 video hardware.

The screen memory position is now a full 24-bit address. Video memory
can be relocated anywhere with in the 16 megabyte address space of the
STe, and even wraps around at $FFFFFF. The locations $FF8201, $FF8203,
and $FF820D make up the 24 bits. The starting location can be any even
address, which allows for "fine scrolling" of 16 pixels at a time.

The other new register is $FF820F, which tells it how many words to skip
at the end of a scan line. Normally set to $00, you can store any value
up to $FF into this register, and create a virtual screen that much
bigger. For example, storing a value of $28 in monochrome will shrink
the screen down to half its height.

What purpose does this register have? Well, in the good old Atari 800
days, techniques such as this were available with display lists, and it
allowed for smooth screen scrolling in all directions, without having to
actually move any memory. This allowed for some very smooth and fast

video games (Eastern Front is a good example).

One non-video game application that I see is a large screen emulator.
Currently there is a p/d program available called BIGSCREEN, which
allows a 640x400 monitor to emulate, for example, a 1280x960 Moniterm
monitor. The drawback of this software so far has been that the window
scrolling had to be done totally in software by copying large amounts of
screen memory every second. When running BIGSCREEN all programs run
about 30% slower and not as smoothly. On the STe, this can all be done
in hardware with no speed loss. Look for this feature in the next
release of Quick ST.

A few more comments about the machine in general. The power supply
seems to get a lot hotter than on the ST. Although both my ST and STe
are both rated at .8A, the ST has never heated up as much. I realize
that the STe probably draws more power due to the extra hardware, but I
have always been in the habit of leaving commonly used floppies right on
top of the computer. I will probably stop to do this because of the
excessive heat coming out of the left side of the machine. My 1040ST
has lasted for almost 4 years without a hitch, so I hope the STe won't
fry too soon.

Another thing I noticed is that Flash now toggles screens EVERY time I
click on the right mouse button, which of course is how it's supposed to
work. On earlier versions of TOS, I sometimes have to click the right
mouse button several times for it toggle.

Menu bars still have the problem of appearing to lock up if the mouse if
moved out of the menu too quickly.

The keyboard is a bit flakey as before. It feels a little bit stiffer
than the one on my 1040ST, but it still has the same problems with
pressing too many keys at once. Unlike a PC keyboard, the ST cannot
detect when more than 2 or 3 keys have been pressed, and when you do
press a few together, it generates the wrong keystroke.

Then there are the new joystick ports. They are two 15-pin connectors,
like the ones used in VGA cards. According to the STe addendum, each
port has enough pins to support two joysticks and a paddle, giving a
total of 6 joysticks and 2 paddles for the whole machine, and as the
manual says, it can even support a light pen. Once again, memories of
the Atari 800 fill my eyes with tears <grin>. I don't know where one
gets the 15 pin to 9 pin conversion cables, or how to read these new
joysticks from software, but who cares. If you want a game machine, buy
a Nintendo.

Well, that about wraps it up. The STe at the current prices is
definitely a great deal if you were planning to upgrade your existing
ST. I'd recommend to anyone who currently has a 520ST or 1040ST to dump
your old machines while you can still get any money for them, and buy an
STe. Not only can you very possibly make a PROFIT on the deal, but you
also get a blitter chip and TOS 1.6 to boot.

As for buying an STe if you don't already own an ST and haven't invested
a lot of money in a system, well, I wouldn't be too quick to recommend
it. Regardless of what ST owners may think of PCs and Macs, there are
good qualities in each. I prefer to use a PC for doing any sort of word
processing or spreadsheet work, just because the PC software is still
years ahead of ST software. And I've seen some amazing graphics and
digital sound hardware for the Mac II, but I can't afford it. The 68000

is still my favourite chip for programming, but most people aren't programmers, and Atari's future isn't bright yet.

Probably 99% of the software that runs on TOS 1.4 will run on TOS 1.6, and the possibility of a 68020 or 68030 upgrade for it sounds very appealing. This may turn out to be a very low end TT, something that most of us would be able to afford.

I like the new sound chip a lot. I like the new video hardware a lot. The only question is, will future software be written specifically for the STe, or for the ST (and thus be STe compatible) or are we going to see separate versions for both? I can really only see this affecting video games in the near future, but the ability to have high quality digital sound will definitely open the door to a new type of software. Already on the Mac II, CD-ROM players are being used for some multimedia (the buzzword of the 90's) products.

If Atari ever decides to ship their silly CD-ROM player, it might even be possible to take ordinary audio CDs, load sections into the STe's memory, edit the sound samples, and play them out the audio jacks. Certainly, all of the cheap 8-bit digitizers already out for the ST will be able to play the sounds samples back at very high quality. It should even be possible to wire up a resistor network to combine the left and right channel outputs and create a CD quality analog output. Who knows, maybe the chip already does that.

I also wonder how soon it will be before some of the hardware accelerators and boards like PC-Ditto II will be available for the STe. Although I haven't taken the machine apart, yet, I have heard that the chips are all different shapes and this should make it really fun for the board makers.

But I can't help and wonder what Atari really has planned, if anything (that could be asking too much of them). Is this machine just an Atari-800-wanna-be which will be nothing more than a very advanced game machine, or is this machine only intended to take away some Amiga sales (I'm sure it is), or does Atari really plan to exploit the new features?

Who will release the first 68030 board for it? Is it possible to modify an existing ST to relocate the ROMs so that TOS 1.6 can be used on any ST? Will Atari ever release docs on the STe or is it up to users to figure it out for themselves? Most of Atari's documentation has been pretty lousy so far. How soon before the 520ST and 1040ST are totally phased out? Why does the STacy, still use TOS 1.4? If Atari is planning to phase out the old STs, then the STacy certainly isn't going to help. And if the STacy is being aimed at musicians, then why didn't they include the new sound chip on it? Will the new sound and video hardware be available as an upgrade to existing STs? Since they never did come out with the blitter upgrade, I would guess not, unless a third party does it.

Well, I'm sure these questions will all be answered soon enough whenever the STe finally hits the U.S. market. I can finally stop complaining and get to work on the STe Xformer <grin>.